

SUPERCONDUCTING COIL SYSTEM

ABSTRACT OF THE DISCLOSURE

A superconducting coil system comprising a superconducting coil and a normal conducting coil, the
5 normal conducting coil having a current time constant (L_2/R_2) which is larger than L_1/R_1 , or the time constant at which the current through the superconducting coil decays rapidly after the conductors in the superconducting coil made a transition to the normal conducting state, in which
10 L_1 and L_2 represent the self-inductances of the superconducting coil and the normal conducting coil, respectively, R_1 represents the resistance for causing rapid decay of the current flow through the superconducting coil, and R_2 represents the resistance of the normal
15 conducting coil.